

REMARKS

Before entry of this Amendment and Response, the status of the application according to the pending Office action is as follows:

- Claim 25 is rejected under 35 U.S.C. §101 as claiming the same invention as that of claim 24 of prior U.S. Patent No. 6,964,312.
- Claims 1-25 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- Claims 1-7, 11-16, and 18-25 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,765,773 to Hopkins (hereinafter “Hopkins”).

Applicant hereby cancels claims 15, 16, and 25, and amends claims 1, 21, and 23 without prejudice, as shown in the preceding Listing of Claims. Support for these amendments can be found in the claims and specification as filed, and at least in claims 15 and 16 and in paragraphs [0009] and [0085] of the application as published. No new matter is added thereby.

Applicant respectfully requests reconsideration and withdrawal of all grounds of rejection and passage of claims 1-7, 11-14, and 18-24 to allowance in due course.

1. Claim 25 is rejected under 35 U.S.C. §101 as claiming the same invention as that of claim 24 of prior U.S. Patent No. 6,964,312. Applicant hereby cancels claim 25, thereby rendering the rejection of that claim moot.

2. Claims 1-25 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. More particularly, the Office action argues, at page 3, that Applicant's various uses of the term substantially "*lacks a clear and precise definition and whose meaning is completely dependent on a person's subjective opinion. As such, one of ordinary skill in the art could not determine the metes and bounds of the claims.*" Applicant hereby cancels claims 15, 16, and 25, thereby rendering the rejection of those claims moot. Applicant respectfully traverses this rejection as applied to the remaining claims, as amended.

The fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. 112, second paragraph. *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification. MPEP 2173.05(b). More particularly, the term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). Courts have repeatedly held that terms such as "substantially increase the efficiency of" or "substantially equal" were definite because, for example "one of ordinary skill in the art would know what was meant by 'substantially equal.'" *Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988). *In re Mattison*, 509 F.2d 563, 184 USPQ 484 (CCPA 1975). MPEP 2173.05(b).

As such, Applicant respectfully submits that the terms "substantially closed perimeter," "adapted substantially for rolling," "substantially parallel," or "substantially closed polygon," as recited in certain of claims 1, 6, 12, 18, 21, 23, and 25, are definite because, at least in light of MPEP 2173.05(b), one of ordinary skill in the art would know what was meant by the above-identified terms. By way of example, "substantially closed" does not require complete closure,

but sufficiently sealed closure (with minimal gaps) “sufficient to adhere the apparatus to the surface,” in accordance with the claim language. Describing the seal as “adapted substantially for rolling” contemplates primarily rolling contact with the surface. However, when the apparatus turns, there will be some sliding contact, as inherent with all tracked or roller vehicles, as understood by those skilled in the art. Finally, “substantially parallel” describes tracks or rollers oriented in parallel arrangement, within ordinary tolerance bands for this type of apparatus, again as would be appreciated by those skilled in the art.

Applicant therefore requests reconsideration and withdrawal of the above rejection of claims 1-25 under 35 U.S.C. §112, second paragraph.

3. Claims 1-7, 11-16, and 18-25 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hopkins. Applicant hereby cancels claims 15, 16, and 25, thereby rendering the rejection of those claims moot. Applicant respectfully traverses this rejection as applied to the remaining claims, as amended.

Briefly, Hopkins appears to disclose a vehicle (10) pulling a paint application and drying apparatus (20) with a flexible microwave absorbing shield (22), which extends in all four directions from an upper platform (21). Within the apparatus (20) there are four wheels, two front (23, 24) and two rear (25, 26), supported by a rigid frame (27). The frame (27) extends to the vicinity of the highway, but does not touch it, as does the flexible shield (22). The outer edges of the wheels (23-26) have recesses in which flexible treads (29, 29') are received. These treads (29, 29') have a thickness which is equivalent to or greater than the gap between the bottom edge of frame (27) and the highway. The rollers (23-26), treads (29, 29'), and rigid frame (27) act together to form an interior microwave cavity (30). Laterally directed

microwaves are blocked in part by the rollers (23-26), and the side walls and end walls of frame (27). Since this frame does not touch the ground, there is a possible path for the escape of radiation. However, this line-of-sight path is blocked by the treads (29, 29'), such that microwaves would have to travel a circuitous path over the treads (29, 29') and then down between the treads (29, 29') and wall (27). See Hopkins at col. 3, line 38 to col. 4, line 67. An alternative embodiment, includes a miniaturized apparatus (60) that is fitted with a handle (61) for manually holding the apparatus against, and moving it along, a wall. See Hopkins at col. 6, lines 23-57.

Applicant's amended independent claims 1, 21, and 23, recite an apparatus including a seal which is adapted to maintain "a vacuum seal with the surface sufficient to adhere the apparatus to the surface." Applicant respectfully submits that Hopkins fails to teach or suggest such a structure, at least because Hopkins does not teach or suggest an apparatus having a "vacuum" seal, and more particularly does not teach or suggest any seal capable of adhering the apparatus to a surface.

The "seal" described in Hopkins is designed to prevent the escape of linearly traveling (i.e., line-of-sight) microwave radiation, and does not provide a "vacuum seal" within the cavity. In fact, the treads (29, 29') of Hopkins provide an open side wall to the cavity (30), with only the thickness of the tread blocking the microwave radiation, and with the radiation, and also therefore air, free to travel over the treads (29, 29'). See Hopkins at FIG. 5 and col. 4, lines 18-23 and col. 4, line 59 to col. 5, line 3. As a result, as the frame (27) of Hopkins does not touch the highway or wall [see Hopkins at FIGS. 3 and 5 and col. 4, lines 10-12 and col. 6, lines 30-34] and, as the treads (29, 29') provide an open path therethrough, the frame, wheels, and treads of Hopkins do not and cannot produce a "vacuum seal," but rather merely provides a line-of-sight

barrier past which linearly traveling microwaves cannot pass through.

In addition, the flexible shield (22) of Hopkins is a fabric, coated with a microwave absorbent material, that extends to the highway to further block microwaves that escape past the frame, wheels, and treads. The flexible shield (22) is free to drag against the surface of the highway as the vehicle moves. See Hopkins at col. 3, lines 54-67. This flexible shield does not provide a “*vacuum seal*,” but rather merely provides a flexible coated fabric that blocks stray microwaves escaping from the cavity. Further, this shield is not “adapted substantially for rolling.”

Applicant further submits that the device of Hopkins does not include any seal “*sufficient to adhere the apparatus to the surface*.” Rather, the drying apparatus (20) of Hopkins is pulled behind a vehicle (10) and rests freely on the highway without any vacuum force being applied. Meanwhile, the miniaturized apparatus (60) includes a handle (61) allowing a user to manually hold the apparatus (60) against a wall. As such, neither apparatus (20, 60) of Hopkins includes any sealing means for adhering the apparatus to a surface, as claimed in independent claims 1, 21, and 23.

Applicant further submits that, not only does the apparatus of Hopkins not have a “*vacuum seal with the surface sufficient to adhere the apparatus to the surface*,” as required by amended independent claims 1, 21, and 23, but the apparatus of Hopkins specifically requires a controlled flow of leakage air from the exterior of the apparatus into the cavity in order to operate, thereby teaching directly away from a “*vacuum seal*.” More particularly, in order for the vacuum unit (86) of Hopkins to perform its required function (i.e. to suck out noxious vapors from the cavity (72) – see Hopkins at col. 6, lines 48-52), an air flow into the cavity to replace the air sucked from the cavity by the vacuum unit is required. As such, the apparatus of Hopkins

is fundamentally different in structure and function than Applicant's claimed surface traversing apparatus, which requires substantially zero leakage or flow in order to create the vacuum seal and reliably attach the claimed apparatus to the surface being traversed.

Applicant therefore submits that Hopkins fails to teach every element of amended independent claims 1, 21, and 23. Because claims 2-7, 11-14, 18-20, 22, and 24 depend, either directly or indirectly, from independent claims 1, 21, or 23 respectively, and include all of the limitations thereof, Applicant respectfully submits these claims are allowable as well.

Applicant's dependent claim 4 further requires that the drive is adapted to power "*the at least one roller*," while dependent claim 7 further requires that the drive is adapted to power "*the track*." Independent claim 21 also requires a "locomoting seal." Applicant respectfully submits that Hopkins does not appear to teach or suggest a drive adapted to power at least one roller or a track of a surface traversing apparatus, or a locomoting seal. Rather, the wheels (23-26) and treads (29, 29') of Hopkins are unpowered, with the drying apparatus (20) pulled by a separate vehicle (10), while the miniaturized drying apparatus (60) of Hopkins is moved manually by a user through the handle (61). Applicant therefore submits that dependent claims 4 and 7, and independent claim 21, are independently allowable, at least for these reasons, as well.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-7, 11-14, and 18-24 as being unpatentable over Hopkins.

CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration, withdrawal of all grounds of rejection, and allowance of claims 1-7, 11-14, and 18-24 in due course. Additionally, Applicant respectfully requests reentry and allowance of withdrawn claims 8-10

and 17, as these claims depend, either directly or indirectly, from independent claim 1, which is patentable for the reasons discussed hereinabove. The Examiner is invited to contact Applicant's undersigned representative by telephone at the number listed below to discuss any outstanding issues.

Respectfully submitted,

Date: July 14, 2009
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